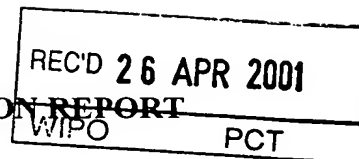


14

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)



Applicant's or agent's file reference P427955BMP/b/m	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International application No. PCT/NZ 00/00133	International filing date (<i>day/month/year</i>) 21 July 2000	Priority Date (<i>day/month/year</i>) 22 July 1999
International Patent Classification (IPC) or national classification and IPC Int. Cl.⁷ F24C 15/10, 7/08		
Applicant FISHER & PAYKEL LIMITED et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of **3** sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of **2** sheet(s).

3. This report contains indications relating to the following items:

- | | | |
|------|-------------------------------------|---|
| I | <input checked="" type="checkbox"/> | Basis of the report |
| II | <input type="checkbox"/> | Priority |
| III | <input type="checkbox"/> | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| IV | <input type="checkbox"/> | Lack of unity of invention |
| V | <input checked="" type="checkbox"/> | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| VI | <input type="checkbox"/> | Certain documents cited |
| VII | <input type="checkbox"/> | Certain defects in the international application |
| VIII | <input type="checkbox"/> | Certain observations on the international application |

Date of submission of the demand 09 February 2001	Date of completion of the report 06 April 2001
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200 WODEN ACT 2606 AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer M.E. DIXON Telephone No. (02) 6283 2194

I. Basis of the report**1. With regard to the elements of the international application:***

- ☐ the international application as originally filed.
- ☒ the description, pages **1-6,9**, as originally filed,
pages , filed with the demand,
pages , received on with the letter of .
- ☒ the claims, pages , as originally filed,
pages , as amended (together with any statement) under Article 19,
pages , filed with the demand,
pages **7,8**, received on **21 March 2001** with the letter of **21 March 2001**.
- ☒ the drawings, pages **1-7**, as originally filed,
pages , filed with the demand,
pages , received on with the letter of .
- ☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
pages , received on with the letter of .

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, was on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims 1-10	YES
	Claims	NO
Inventive step (IS)	Claims 1-10	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-10	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)**NOVELTY (N) and INVENTIVE STEP (IS). Claims 1-10.**

- (1) US 5162636.
 (2) US 5138135.
 (3) GB 2170002.
 (4) DE 4214509.

The only independent claim, claim 1 is directed to a cooktop having at least one heating means beneath a transparent glass ceramic surface with an opaque layer on sections of the underside and a status indicator. The status indicator comprising;

indicator means positioned directly underneath the surface and near the heating means,
 the opaque layer is removed directly above the indication means,
 control means to determine the temperature of the surface above the heating means and to energise or de-energise the indication means according to the temperature of the surface.

None of the citations disclose the above combination of features. Hence, the present claims are novel and inventive over and above the disclosures in the prior art.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A cooktop including at least one heating means disposed beneath a substantially colourless and transparent ceramic glass, surface with an opaque layer on sections of the underside thereof and a status indicator, said status indicator comprising:
indication means positioned directly underneath said surface proximate to said heating means wherein said opaque layer is not present directly above said indication means, allowing said indication means to be visible directly above said cook top, and
control means configured to determine the temperature of said surface above said heating means and energise said indication means when said surface above said heating means is above a predetermined temperature and de-energise said indication means when said surface above said heating means is below said predetermined temperature.
2. A status indicator according to claim 1 wherein said control means comprises an electric circuit fed from a transformer less supply.
3. A status indicator according to claims 1 or 2 wherein the colour emitted by said indication means is dependent on whether said heating means is energised.
4. A status indicator according to any one of claims 1 to 3 wherein said indication means is at least one light emitting diode.
5. A status indicator according to any one of claims 1 to 4 wherein said control means includes heat sensing means positioned in close proximity to said heating means, the electrical characteristics of which are temperature dependent.
6. A status indicator according to claim 5 wherein said heat sensing means is a bimetallic switch.
7. A status indicator according to claim 5 wherein said heating sensing means is a thermistor.
8. A status indicator according to claim 5 wherein said heating sensing means is a positive temperature coefficient paste coated on the underside of said surface or said opaque layer.

9. A status indicator according to any one of claims 1 to 8 wherein said predetermined temperature is the maximum temperature for which human skin can safely be exposed to.

10. A status indicator according to any one of claims 1 to 8 wherein said predetermined temperature is 50°C.